

IN THE CLAIMS

Amend claims 1, 3, 5, and 8 as follows.

1 CM 1. (Amended) A method of recovering  $\tau$  at a destination node of a  
 2 packet-based telecommunications network, the timing clock of a service input at a  
 3 source node of said packet-based telecommunications network, the destination  
 4 node and the source node having a common network clock, comprising the steps  
 5 of:  
 6 P1 (a) at the source node, dividing the timing clock of the service input  
 7 by a factor of an integer  $N$  to form residual time stamp (RTS) periods;  
 8 P1 (b) at the source node, counting the network clock cycles modulo  $2^P$ ,  
 9 B where  $2^P$  is less than the number of network clock cycles within an RTS period  
 10 L and  $P$  is chosen so that the  $2^P$  counts uniquely and unambiguously represent the  
 11 range of possible network clock cycles within an RTS period;  
 12 P1 (c) transmitting from the source node to the destination node an RTS  
 13 at the end of each RTS period that is equal to the modulo  $2^P$  count of network  
 14 clock cycles at that time;  
 15 P1 (d) determining from the RTSs received at the destination node, the  
 16 number of network clock cycles in each RTS period;  
 17 P1 (e) generating a pulse signal from the network clock at the destination  
 18 node in which the period between each pulse in the pulse signal equals the  
 19 determined number of network clock cycles in the corresponding RTS period; and  
 20 P1 (f) multiplying the frequency of the pulse signal generated in step (e)  
 21 by [a factor of  $N$ .] the same factor of an integer  $N$  used in step (a) to recover the  
 22 timing clock of the service input.

1 3. (Amended) A method of recovering  $\tau$  at a destination node of a  
 2 packet-based telecommunications network, the timing clock of a service input at a  
 3 source node of said packet-based telecommunications network, the destination  
 4 node and the source node having a common network clock, comprising the steps  
 5 of:  
 6 (a) at the source node, dividing the timing clock of the service input  
 7 by a factor of an integer  $N$  to form residual time stamp (RTS) periods;  
 8 (b) at the source node, dividing the network clock by a rational factor  
 9 to form a derived network clock;  
 10 (c) at the source node, counting the derived network clock cycles  
 11 modulo  $2^P$ , where  $2^P$  is less than the number of derived network clock cycles  
 12 within an RTS period and  $P$  is chosen so that the  $2^P$  counts uniquely and

13 unambiguously represent the range of possible derived network clock cycles  
14 within an RTS period;

15 (d) transmitting from the source node to the destination node an RTS  
16 at the end of each RTS period that is equal to the modulo  $2^P$  count of derived  
17 network clock cycles at that time;

18 (e) at the destination node, dividing the network clock by the same  
19 rational factor used at the source node to form a derived network clock equal to  
20 the derived network clock at the source node;

21 (f) determining from the RTSs received at the destination node, the  
22 number of derived network clock cycles in each RTS period;

23 (g) generating a pulse signal from the derived network clock at the  
24 destination node in which the period between each pulse in the pulse signal equals  
25 the determined number of derived network clock cycles in the corresponding RTS  
26 period; and

27 (h) multiplying the frequency of the pulse signal generated in step (g)  
28 by [a factor of  $N$ .] the same factor of an integer  $N$  used in step (a) to recover the  
29 timing clock of the service input.

1 5. Apparatus for recovering , at a destination node of a packet-based  
2 telecommunications network , the timing clock of a service input at a source node  
3 of said packet-based telecommunications network, the destination node and the  
4 source node having a common network clock, comprising at the source node:

5 dividing means for dividing the timing clock of the service input by a  
6 factor of an integer  $N$  to form residual time stamp (RTS) periods;

7 counting means connected to the network clock for counting network  
8 clock cycles modulo  $2^P$ , where  $2^P$  is less than the number of network clock cycles  
9 within an RTS period and  $P$  is chosen so that the  $2^P$  counts uniquely and  
10 unambiguously represent the range of possible network clock cycles within an  
11 RTS period; and

12 transmitting means , responsive to the RTS periods formed by said  
13 dividing means and the count of said counting means, for transmitting over the  
14 telecommunications network an RTS at the end of each RTS period that is equal to  
15 the modulo  $2^P$  count of network clock [pulses] cycles at that time;

16 and comprising at the destination node:

17 receiving means for receiving the RTSs transmitted over the  
18 telecommunications network by said transmitting means;

A3  
(contd)

19 converting means responsive to the received RTSs and the network  
20 clock for converting the received RTSs into a pulse signal in which the periods  
21 between pulses are determined from the numbers of network clock cycles  
22 associated with [those RTS counts] the counts of network clock cycles within said  
23 RTS periods ; and  
24 means for multiplying [by a factor of  $N$ ] the frequency of the pulse  
25 signal generated by said converting means [for converting.] by the same factor of  
26 an integer  $N$  used in said dividing means for recovering the timing clock of the  
27 service input.

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A4  
(contd)

1 8. (Amended) Apparatus for recovering    at a destination node of a  
2 packet-based telecommunications network    the timing clock of a service input at a  
3 source node of said packet-based telecommunications network, the destination  
4 node and the source node having a common network clock, comprising at the  
5 source node:  
6 first dividing means for dividing the timing clock of the service input  
7 by a factor of an integer  $N$  to form residual time stamp (RTS) periods;  
8 second dividing means for dividing the network clock by a rational  
9 factor to form a derived network clock;  
10 counting means connected to the network clock for counting derived  
11 network clock cycles modulo  $2^P$ , where  $2^P$  is less than the number of derived  
12 network clock cycles within an RTS period and  $P$  is chosen so that the  $2^P$  counts  
13 uniquely and unambiguously represent the range of possible derived network  
14 clock cycles within an RTS period; and  
15 transmitting means    responsive to the RTS periods formed by said  
16 first dividing means and the count of said counting means, for transmitting over  
17 the telecommunications network an RTS at the end of each RTS period that is  
18 equal to the modulo  $2^P$  count of derived network clock [pulses] cycles at that  
19 time;  
20 and comprising at the destination node:  
21 receiving means for receiving the RTSs transmitted over the  
22 telecommunications network by said transmitting means;  
23 means for dividing the network clock by the same rational factor used  
24 at the source node to form a derived network clock;  
25 converting means responsive to the received RTSs and the derived  
26 network clock for converting the received RTSs into a pulse signal in which the  
27 periods between pulses are determined from the numbers of derived network clock  
28 cycles associated with [those RTSs] the counts of derived network clock cycles